POPULATION TODAY

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FROM THE EDITOR'S DESK

Adjustment by a thousand cuts. Commerce Secretary Robert A. Mosbacher may have turned thumbs down on adjusting 1990 Census figures, but this does not necessarily mean that heavily undercounted urban and minority areas are stuck with the consequences. Besides a full-blown court challenge, a myriad of small, indirect "adjustments" may come into play.

In his post-decision appearance before the House Subcommittee on Census and Population, July 16, Mr. Mosbacher took a lot of heat from representatives Mervyn Dymally (D-CA), Charles Hayes (D-IL), Pat Schroeder (D-CO), and Eleanor Holmes Norton (D-DC). Already hard-hit minority and poverty communities will be additionally short-changed, they charged, when funds for about 60 federal programs are distributed based on 1990 undercounts. Mosbacher countered that Congress—not the Census Bureau—sets the formulas by which federal funds are distributed. Congress, he suggested, can change them through a political process.

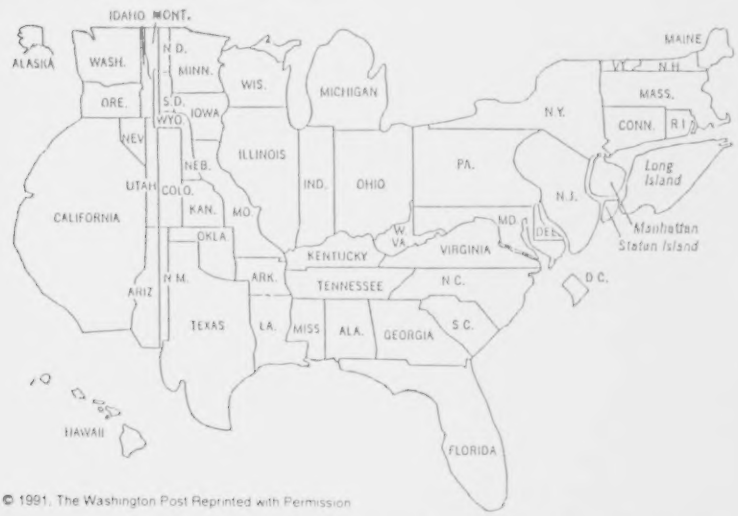
Political inequity arising from the undercount is another unresolved issue. If we draw voting districts according to census counts that demonstrably undercount minority communities, the "one person, one vote" rule of the Voting Rights Act is threatened. However, here, too, indirect adjustments could obviate the effect of the undercount. Other states may follow Virginia's example, which "underpopulated" and "overpopulated" certain legislative districts to compensate for undercounts in the heavily black tidewater cities. In *Mena v. Mosbacher*, a Texas redistricting case, the Hispanic community plans to introduce the issue of the undercount.

Most of these alternatives to adjustment, however, require access to adjusted counts at the block level—something Mr. Mosbacher in July was not prepared to release, and that California has filed a Freedom of Information Act suit to obtain.

—Susan Kalish

SPEAKING GRAPHICALLY

States by Population Size: 1990



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Here's a U.S. map with a difference! State boundaries are drawn to scale by 1990 *population size* instead of land area.

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Editorial and Circulation Offices:
Population Reference Bureau, Inc.
1875 Connecticut Ave., N.W., Suite 520
Washington, D.C. 20009-5728
(202) 483-1100

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Threatened Census Cuts Cause Jitters

As Congress reconvenes to complete its annual battle of the budget this September, demographic data users will be watching one particular line item with anxiety: funding for the Census Bureau to produce data products from the 1990 Census.

Before its August recess, the Senate slashed $30 million—over one-third the total—from FY 1992 funding for activities to complete the 1990 Census cycle. Senator Ernest Hollings (R-SC), chairman of the Subcommittee for Commerce, Justice, State, and the Judiciary of the Senate Appropriations Committee, proposed the cut in July. (The Senator is perhaps best known for the "Gramm-Rudman-Hollings Act" of 1985, which set up automatic, across-the-board budget cuts if Congress and the President could not agree on a balanced budget.)

The Appropriation Committee of the House of Representatives did not make such a sizable cut, but did shave $2.6 million from the total "periodic programs" account. This month, a House-Senate conference committee will resolve differences between the two versions.

Exchange of Views

After receiving, according to one committee staffer, "hundreds of calls" on the matter, Sen. Hollings entered into a "colloquy" (a statement of position placed in the *Congressional Record*) with Sen. Paul Sarbanes (D-MD), Herbert Kohl (D-WI), and Warren Rudman (R-NH) on "the importance of the 1990 decennial census products."

As chairman of the House-Senate Joint Economic Committee, Sen. Sarbanes expressed his concern that "a cut of this magnitude could seriously hamper the ability of the Census Bureau to analyze and disseminate the data collected in the 1990 decennial census."

"After the enormous resources we have devoted to the census over the last decade, it would be simply illogical to throw away much of that effort now."

Sen. Sarbanes also moved to clear up some apparent confusion over whether the Census Bureau had sufficient carryover funds from FY 1991 to cover the gap. The bureau, he said, has only a "small" unobligated balance that will be spent through delayed procurement of data processing and specific programs to be completed within the next two or three months.

Sen. Kohl, as chairman of the Governmental Affairs Subcommittee on Government Information and Regulation, urged restoration of full funding. He pointed out that "census data will be used by local communities to plan for the future." He added, "without these data it would be impossible to plan roads and water treatment."

Sen. Hollings stated that, even with the proposed cuts in effect, "it is my understanding that the Census Bureau will have the funds necessary to complete the 1990 Census." Nevertheless, he said, "I will look into this matter further. If, as the Senator [Sarbanes] said, the carryover funds do not appear to be sufficient, then I would be prepared to make an effort to restore funds to this account."

Effect on Census Products

Because the cut proposed by the Senate goes so deep, even a compromise could be severe enough to cause delays or abandonment of planned census products—from the tried and true (such as data on microfiche), to high-tech innovations (such as providing data on CD-ROM [read-only-memory] discs). All this would be bad news for the diverse group that the Census Bureau generically refers to as "data users": academic researchers, statisticians, business marketers, epidemiologists, planners, politicians, program providers, students, public opinion pollsters, libraries, and others.

Although the general public might consider the 1990 Census as "over with," the bureau actually has just begun its reporting. The basic head counts--population by age, sex, and race—were released on schedule last winter and spring. Information from Summary Tape File (STF) 1A, on population and housing characteristics at the state and local level, was complete as of June. According to Katherine Wallman of the Council of Professional Associations on Federal Statistics, products that could be in jeopardy if the cuts are maintained include:

- Data on racial, ethnic, and Hispanic origin from the detailed "long-form" questionnaire (STF 3 and STF 4).
- Long-form data such as occupation and educational attainment by race and sex, county-to-county migration, and information by congressional district and zip code.
- Data on commuting patterns needed to define Metropolitan Statistical Areas for the 1990s.
- The PUMS (Public Use Microdata Samples), inexpensive computer files of detailed characteristics from a large sample of U.S. households.
- Map production, including such innovations as the TIGER computer-generated block-level maps.
- Reports on special topics—such as migration, education and industry, income, mobile homes, racial and ethnic groups—that were earmarked for 40 subject reports and 20 summary computer files.

The prospect of delays and cancellations caused a sense of *déjé vu* among those who went through the frustration of waiting years beyond due dates for 1980 Census products.

—*S.K.*

Census Adjustment Update . . .

More or less as expected, Secretary of Commerce Robert A. Mosbacher announced on July 15th his decision not to adjust the 1990 Census for the differential undercount. What came as a surprise to many, however, was that Director of the Census Bureau Barbara Bryant and seven of a nine-member Undercount Steering Commiittee recommended in favor of tackling the undercount through statistical adjustment. Commerce Under Secretary for Economic Affairs Michael Darby recommended against adjustment. The secretary's Special Advisory Panel split four to four.

Intensified Family Planning for Pakistan?

Participants at a high-level seminar on population planning, labor welfare, and communications held in Karachi this April urged the government of Pakistan to create a vigorous new national population policy to slow down population growth.

Pakistan is the ninth most populous nation in the world. The country has long had a population policy, but it has not been effectively enforced.

The three-day meeting at the Ministry of Labor's training center, which received copious media coverage in Pakistan, was organized by the National Institute of Labour Administration and Training in conjunction with the New York-based organization Population Communications International and the Friedrich Ebert Foundation of the Federal Republic of Germany.

Wasim Sajjad, chairman of Pakistan's senate, stressed the need to strike a balance between population increase and economic development. A poor country with an unbridled population growth rate, he said, is beset with far more problems than a developing country that has controlled its demographic swell. He pointed to Iran's five-year social and economic development plan for balancing population growth through family planning and its target of reducing it from the present 3.2 percent a year to 2.9 percent by 1993. He referred also to well-developed family planning programs in the fellow Islamic countries of Indonesia and Bangladesh.

A committee of experts was formed to assess current family planning efforts and make recommendations within a few months to the government of Pakistan, which is currently formulating labor and population policies.

Uncontrolled urbanization in Karachi—where the population swelled from 1 million in 1950 to nearly 8 million today—was also a matter of concern. "Despite the government's all-out efforts to improve living conditions in Karachi and expand civic services, developmental planning is often upset by an unbridled increase in the city's population," said Sajjad. "Therefore, family planning services in Karachi is all the more important, particularly for the large industrial workforce and their families. Similarly, the promotion of social awareness about the demographic and environmental problems and what individuals and communities should do to tackle them is of immense importance."

Conference participants also urged the government's attention to out-of-control environmental problems, such as deforestation and water and air pollution. In this regard, President Ghulam Ishaq Khan's recent stress on the need for protecting the environment was a morale booster for the nascent Pakistani environment movement.

The population explosion in Pakistan—16.6 million in 1901, 33.7 million in 1951, and 117.5 million today—is of serious concern to government leaders and planners. At its current total fertility rate of 6.6 lifetime births per woman and current levels of mortality, the country would double its population by the year 2014.

—Qutubuddin Aziz

Qutubuddin Aziz is the director of the United Press of Pakistan news service and is a board member of the New York-based Population Communications International.

Mary Lee Tatum, Sex Educator, 1937-1991

Mary Lee Tatum, a pioneer in the field of sex education, died this June in an automobile accident. Tatum began working in sex education while teaching at George Mason High School in Falls Church, Virginia, in the early 1970s. A widely-consulted expert, she lectured to groups around the country and internationally and appeared on talk shows. She championed the role of community involvement in sex education and was particularly known for her ability to bring together parents of different outlooks. The intelligence, humor, and personal warmth she brought to her work will be sorely missed. A scholarship fund in Tatum's name has been established at George Mason High School, 7124 Leesburg Pike, Falls Church, VA 22043.

An Invitation to PRB's Awards Dinner

The Board of Trustees and staff of the Population Reference Bureau cordially invite you to celebrate PRB's 62nd anniversary at the 1991 Annual Awards Dinner, honoring outstanding contributions in the field of demography.

The dinner speaker will be Dr. Wesley C. McClure, president of Virginia State University, a distinguished mathematician and educational analyst who also serves on PRB's Board of Trustees.

Date: Thursday, October 31, 1991
Time: Cocktails (cash bar), 6:30 p.m.
Dinner and Awards Ceremony, 7:15 p.m.
Place: The Washington Hilton Hotel, Washington, D.C.

Awards Dinner tickets are $45 each, checks payable to PRB. Send requests to Population Reference Bureau, Attention: Colette Thomas, 1875 Connecticut Avenue, N.W., Suite 520, Washington, DC 20009.

Rescuing the Registry of Kuwait

Just hours after Saddam Hussein began his surprise invasion of Kuwait in August 1990, one lone man braved border guards to smuggle a set of computer disks into Saudi Arabia. The 16 diskettes held information of great value to the Kuwaiti resistance: the complete population registry of Kuwait—a listing of every man, woman, and child in the country.

One year later, the Kuwaitis are still reluctant to divulge the man's name—saying only that he was an employee in the civil registry office. As Masoud Al-Fehaid, press officer of the Kuwait Mission to the United Nations, told *Population Today*, "one of the employees managed to get them out. It was one person's idea, but the others must have agreed with the plan."

Al-Fehaid added: "He was afraid when he brought them to the border he might be checked, but he managed to get them through. He had the courage to go and do what he had to do."

One set of the diskettes was sent to the United Nations, where it became a vivid symbol of the population of 2 million (about 40 percent Kuwaiti, 60 percent non-Kuwaiti) as it stood before the Iraqi invasion. The UN Security Council adopted a resolution on November 28 expressing grave concern "at the ongoing attempt by Iraq to alter the demographic composition of the population of Kuwait and to destroy the civil records maintained by the legitimate government . . . ." It mandated UN Secretary General Javier Perez de Cuellar to "take custody of a copy of the population register of Kuwait."

The occupation forces damaged the registry office computers, but the system continued to operate from Saudi Arabia during the occupation, Al-Fehaid said. Now, in the aftermath of the war, it assists the government of Kuwait to track displaced persons, deaths, and the missing.

The heroic rescue of population statistics, set against the staid backdrop of a demographer's accustomed labors, makes for an unusual tale. But the registry of Kuwait is remarkable for another reason as well: it is one of the most sophisticated population tracking systems in the world.

This high-tech system lists an individual's name, address, profession, phone number, date of birth, and children. It traces one's family line, starting with name of father, grandfather, and on back through several generations. As we went to press, partly due to irregular conditions following the war, it was not possible to obtain detailed information on the registry system: when it was installed, its technical components, and the extent to which it is used to estimate population statistics. We hope to report more details in a forthcoming issue of *PT*.

Known for producing some of the most reliable population data in the region, Kuwait has taken a census every five years since 1957, the last one occurring in 1985. The 1990 census was delayed as some officials debated whether they might not drop census taking altogether, then the disruption of war overwhelmed such discussions. A new census is now planned, however.

—*S.K.*

African Americans: Growing Diversity, Persistent Inequalities

The numbers of middle-class and affluent blacks are increasing, even while blacks are losing ground overall, according to PRB's newest *Population Bulletin*, "African Americans in the 1990s."

Black married-couple families in which both spouses work increased their earnings during the 1970s and 1980s. Their median income by 1989 reached 82 percent of comparable whites. Families headed by younger, college-educated blacks achieved 92 percent of income parity with whites. In 1989, 42 percent of black families earned $25,000 or more a year; 15 percent earned $50,000 or more.

About one-fourth of black families earned less than $10,000 a year, however. Many of these are mother-headed families, which are especially vulnerable to poverty. Overall, black median income ($20,200 in 1989) is only 56 percent that of whites.

Meanwhile, national demographics are shifting, changing the meaning of minority status. During the 1980s, the population size of African Americans increased faster than that of whites but more slowly than that of Hispanics and Asians. Although one in eight Americans is black, blacks make up only 49 percent of the minority population. In addition, racism appears to continue taking a toll on black progress. What the future holds for African Americans is therefore unclear.

The *Bulletin* provides an up-to-date overview of black residential patterns, family patterns, mortality and health, education, labor force participation, and political participation.

"African Americans in the 1990s," by William P. O'Hare, Kelvin M. Pollard, Taynia L. Mann, and Mary M. Kent. *Population Bulletin*, vol. 46, no. 1, July 1991. 40 pp. Population Reference Bureau, 1875 Connecticut Avenue, N.W., Washington, D.C. 20009. Cost: $8 each (prepaid), discounts for multiple orders.

Watch for upcoming *Population Bulletins* on U.S. baby boomers, world health prospects, and a mini-text on demography.

DEMOGRAPHER'S PAGE

People Over Age 100: Fewer than We Think

by Ansley Coale

"Congratulations on your birthday! At this time of rejoicing and remembering, we are happy to add our best wishes on your special day. May you enjoy God's richest blessings, peace, contentment, and love."
—George and Barbara Bush

Last year, President Bush sent this engraved message to 13,839 people on their 100th through 104th birthday. Similar cards were sent to people 80 years and older. People age 105 or older received a letter from the President.

You can add a name to the White House birthday list by request (no proof of age is required), so age inflation is probably not uncommon. We also find age exaggeration in even our best sources of data on the older population, particularly among centenarians—people age 100 or older. This article explains how we know this and suggests a method to correct it. —S.K.

An examination of old-age mortality data in the United States has confirmed what many demographers have long suspected. The death rates of the oldest U.S. age groups are significantly understated, particularly at advanced ages. Age-specific death rates of centenarians (people age 100 and older) are particularly liable to be inaccurate because the standard data sources on which rates are based have major deficiencies. Although age exaggeration may start small, perhaps half a year at age 70, the tendency to exaggerate keeps growing like Pinocchio's nose until—at ages 90, 100, and beyond—validity is clearly suspect.

The number of centenarians in the 1980 Census is listed as 32,194. Others have investigated quality problems with census data on centenarians, placing the number closer to 15,000.[1] In a recent study, undertaken for the National Center for Health Statistics,[2] Ellen E. Kisker and I examined the systematic defects incorporated in each of the major sources of data from which death rates of older people can be calculated. These sources included:

- Registered deaths in the vital statistics system;
- 1980 Census counts; and
- Medicare program participation and death records.

Data Problems

One quick way to judge the credibility of old age data in the United States is to compare it to similar data from other developed countries that have comparable mortality patterns but fairly complete population registries. It immediately becomes clear that something is amiss. The table below shows the three highest-reported individual ages at death in these countries and the United States. U.S. ages at death exceed those recorded in other countries to an implausible degree. The highest age at death recorded among the six comparison countries exceeds 109 in only one or two instances. In the United States, even the second-highest and third-highest age at death reported in a given year has exceeded 120.

The death rate for a specific age group is the number of deaths in that age group divided by the population "at risk" of dying. It is usually multiplied times a constant such as 100,000 for clarity. Calculating it for 105 year olds in 1980 results in the following:

$$\frac{\text{Number of deaths at age 105}}{\text{Population age 105}} \times 100{,}000 = \frac{231}{1{,}616} \times 100{,}000 = 14{,}295$$

Thus, for every 100,000 persons reported to be 105 in the census, 14,295 (or 14.3 percent) died in 1980. The numerator comes from death certificate registrations in the national vital statistics system; the denominator comes from the decennial census. But, the more the denominator (census figure) is exaggerated, the smaller death rates will be.

Tallies of centenarians in the decennial census tend to be exaggerated for a variety of reasons. Many people of ad-

Oldest Ages at Death: United States and Selected Countries

	Reported Age at Death for					
	Men			Women		
Country (time period)	Oldest	Second oldest	Third oldest	Oldest	Second oldest	Third oldest
France (1948-1969)	107	106	106	109	108	108
Italy (1978)	107	105	105	109	108	108
Netherlands (1945-1970)	109	107	106	110	109	108
Sweden (1945-1967)	106	105	105	109	107	107
Switzerland (1948-1970)	105	105	105	108	106	105
Japan						
1953	105	104	104	112	108	107
1983	107	106	105	109	107	106
United States						
1980 (vital statistics)	122	117	114	122	121	120
1979-1981 (Medicare)	124	122	118	124	124	123

Sources: Official vital statistics or demographic yearbooks of the individual countries.

Ansley Coale is Professor Emeritus
of Economics and Public Affairs and Senior Research Associate
at the Office of Population Research, Princeton University

vanced ages lack birth certificates or demonstrably overstate age. And, in the 1980 Census, problems in the method of "allocating" persons of unknown age resulted in too many centenarians being added.

In the countries earlier cited for comparison, very few deaths are reported at ages above 110. It follows, then, that at any moment there are few persons living (and therefore at risk of dying) above this age. Yet the 1980 U.S. Census lists more than 1,000 white persons and nearly 900 nonwhite persons above 110 years of age, compared with 24 white and 65 nonwhite recorded deaths above 110 that year. The census seems to inflate the number of older persons as well. Among older white women (over age 65), the proportion of people above age 95 was 7.4 per 1,000 people over 65 in 1980. This figure is about twice as great as the proportion in Sweden (3.8 per 1,000) or the Netherlands (3.3 per 1,000). The reported proportion over 100 was about four times as great in the United States (1.2 per 1,000) as in Sweden (0.3 per 1,000).

Further evidence of exaggeration of census totals appears when we compare the enumerated old-age population from the census with the population implied by registered deaths and survival rates. To develop a model of the implied population over age 100 for a certain cohort, say, those born 120 years ago in 1870, we add up all registered deaths for the cohort during the years 1970, 1971, 1972, and so on, until all persons born in 1870 have died, that is, the "generation" becomes "extinct." This total provides a check on how accurately the 1970 Census enumerated the cohort of 1870, which provides indirect evidence on the extent to which later censuses might be missing the mark. We can modify this method for younger cohorts (where survivors will remain) by applying an annual rate of change for each age group plus an average number of deaths each year.

A model such as this is known to agree well with the enumerated population when age at death is accurately recorded, the survival rate at each age is correct, and when registration and enumeration are equally complete. In a country like Sweden, for example, the ratio is about one to one. For white males in the United States the ratio of census population to the "calculated" population by the method of extinct generations is also about one to one for the entire population age 65 and older. But the ratio becomes increasingly larger at older ages: from 1.2:1 for people age 95 and older, 1.4:1 for people 100 and older, 9.5:1 for people age 105 and older, and 111.9:1 for people age 110 and older.

If we substitute an indirectly calculated population in place of census figures in the denominator, we get an improved schedule of death rates at advanced ages. However, the new death rates are still unrealistically low at ages over 90. Althought the number of deaths may be accurate, the *age at which they occur* is still being exaggerated.

In forming our picture of survival and mortality at the oldest ages, we can avoid census data altogether by turning instead to Medicare records. Medicare provides a single, closed population registration system for living participants and deaths. Even so, death rates calculated from Medicare data also understate mortality at very high ages (people over 95 or 100).

One source of inaccuracy is that people who were obviously well over age 65 when the Medicare program began in 1966 were excused from providing a proof of age. Early enrollees who exaggerated their ages were "aged" with each passing year, so that a number of them were carried at implausibly high ages—over age 120—by 1980 (as seen in the table). Also, at very high ages, there are persons maintained on the rolls who are no longer legitimate entries. Some may have erroneously been enrolled twice, and others may have died or emigrated without notification of the Social Security system.

Undetected fictitious entries are apparently immortal; if there is no person corresponding to an entry in the register, there can be no death to remove the person from the roles. These anomalies, which could be corrected by dropping any persons whose existence cannot be verified from the Medicare rolls, inflate the denominator of the calculated death rate just as census data do.

An Adjusted Mortality Schedule at Ages Above 85

How to calculate a schedule of death rates for the oldest age groups? Since we have seen that census denominators for advanced ages are quite unreliable, we may turn to mathematical models or ignore the problem by terminating life tables with an age group such as "85+." But our purpose here is to address the problem of death rates at the older ages directly.

Figure 1. Adjusted and Direct Death Rates for Elderly Women in Sweden, 1978-1982

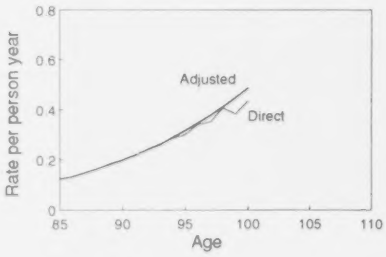
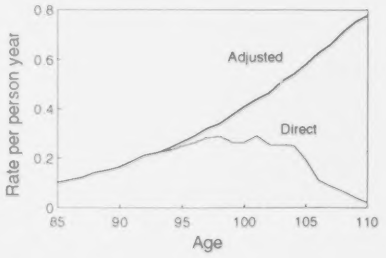


Figure 2. Adjusted and Direct Death Rates for Elderly White Women in the United States, 1980



Source: Ansley J. Coale and Ellen E. Kisker. "Defects in Data on Old-Age Mortality in the United States: New Procedures for Calculating Mortality Schedules and Life Tables at the Highest Ages," *Asian and Pacific Population Forum*. vol. 4, no. 1 (Spring 1990), pp. 2-31.

Continued on next page

Demographer's Page

Continued from previous page

The most popular solution to the problem has been to apply a Gompertz law of exponentially increasing mortality rates with rising age. However, death rates at extreme ages in countries with high-quality data do not support this technique. There is an alternate method: one that assumes death rates in the upper ages *increase at a declining rate.* As Figure 1 shows, the adjusted curve that results closely approximates directly calculated death rates for women in Sweden ages 85 to 100 (achieved by dividing the registered number of deaths at each age by the number of people at risk). In Figure 2, the new curve shows how far away from the truth the death rates for elderly U.S. women may be.

Practical applications of this method allow the investigation of many intriguing mortality issues. For example, it has long been noted that U.S. death rates are lower for older blacks than whites, while they are higher for blacks than whites at younger ages. Some observers have carried this "crossover" phenomenon to the conclusion that older black survivors are genetically tougher. Experimentation with this alternate method, particularly for death rates from Medicare data, suggest that black death rates are higher than white rates; no crossover actually occurs. The Medicare data themselves suggest vital statistics miss 7 to 10 percent of black deaths over age 80.

Thus, new insights can be gained into mortality at older ages, depending on one's confidence in mathematical models and the applicability of data from other developed countries in making assumptions about U.S. rates. However, I would submit that, with a high degree of probability, this method does offer notable improvements.

NOTES

1. U.S. Bureau of the Census, *Current Population Reports* P-23, no. 153, "America's Centenarians" (Washington, D.C.: GPO, 1987); and Gregory Spencer, "The Quality of Centenarian Data in the 1980 Census," paper presented at the 1986 Annual Meeting of the Population Association of America, San Francisco, Calif.
2. Ansley J. Coale and Ellen E. Kisker. "Defects in Data on Old-Age Mortality in the United States: New Procedures for Calculating Mortality Schedules and Life Tables at the Highest Ages," *Asian and Pacific Population Forum*, vol. 4, no. 1 (Spring 1990), pp. 2-31.

TAKE A NUMBER

How does your population grow? (or vice versa) Few things reveal as much about a population's past and future as its age distribution. We were recently somewhat astounded to see the effects of falling birth rates upon the age distribution of Spain.

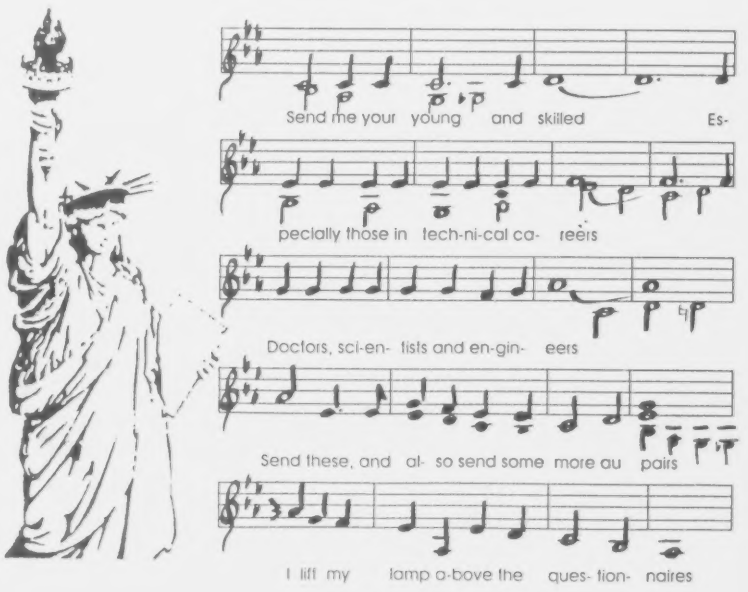
Spain's birth rate has dropped fast and far in the past 15 years, from a total fertility rate of 2.8 lifetime children per woman in 1975 to 1.3 today. As a result, there are 3.1 million in the population between the ages of 10 and 14, but a full *million* less in the four-and-under age group. Such a radical change in the age structure will have far-reaching effects such as the lessened demand for teachers five years from now and possible labor force shortages later on.

Contrast this with high-fertility Pakistan, where the number of children in the four-and-under age group is 23 million, about 10 million more than the 10 to 14 group.

This just in... The population of American Samoa is up by 45 percent from 32,297 in 1980 to 46,773 in 1990. The Republic of Palau's growth was more modest, the 1990 count of 15,122 represents a 25 percent increase since 1980. The Commonwealth of the Northern Marianas experienced a whopping 158 percent increase to 43,345 in 1990, much of that occurring in Saipan municipality. When totals are released later this year for Guam and the Virgin Islands, that will complete the U.S. census' far-ranging geographic coverage for this decade.

—C.H.

ADDENDA

"Tired/Poor" by Garrison Kiellor

Send me your young and skilled Es-
pecially those in tech-ni-cal ca- reers
Doctors, sci-en- tists and en-gin- eers
Send these, and al- so send some more au pairs
I lift my lamp a-bove the ques- tion- naires

In this song snippet, American Public Radio song and storymaster Garrison Kiellor comments on recent immigration policy trends.

EVENTS/ CONFERENCES

• **World Food Day, October 16**. World Food Day's eighth annual teleconference will be broadcast October 16, 12:00 to 3:30 p.m., eastern time. The program will reach colleges, hospitals, and government locations in the United States and be accessible in every country in the Western Hemisphere. World Food Day encourages educators and communities to undertake projects to alleviate hunger. For more information, contact the U.S. National Committee for World Food Day, 1001 22nd Street, N.W., Washington, DC 20037. Telephone: 202-653-2404; fax: 202-653-5760.

• **Population Awareness Week**. October 20-26. This event encourages projects that will raise awareness about global population issues—educator packets tell how. Contact: Lauren M. Zittle, The Population Institute, 110 Maryland Avenue, N.W., Washigton, DC 20002. Telephone: 202-544-33900.

• **Southern Demographic Association**. October 10-12, Jacksonville, Fla. Contact: Dr. John F. Long, Population Division, Bureau of the Census, Washington, DC 20233. Telephone: 301-763-7030; fax: 301-763-3862.

• **International Statistical Programs Center, U.S. Census Bureau, 1991 Fall Workshops.** Planning an Income and Expenditure Survey (October 28-November 8, $1,950); Management of Statistical Activities (November 12-27, $2,350); Microcomputer Applications for Statisticians (December 2-20, $2,800). Deadline: September 15, workshops fill quickly. Contact Leo Dougherty, Chief, Census and Survey Methods Branch, International Statistical Programs Center, Bureau of the Census, Washington, DC 20233; fax: 301-763-7589.

• **International Association for Impact Assessment**, 12th annual meeting, August 19-22, 1992, World Bank headquarters in Washington, DC. Theme: Industrial and Third World environmental assessment, the urgent transition to sustainability. Papers due by February 1, 1992. Telephone: 919-964-2338; fax: 919-964-2340.

SOFTWARE

World Resources, 1990-91, the World Resources Institute's well-known compendium of data on world population, environment, and resources is now available on diskette. In this form, users can quickly call up and use a large number of variables for 146 countries—no need to enter data manually.

The program will output data in ASCII for use in word processing or in spreadsheet format for Lotus and Lotus-compatible programs; provision is also made for output to Javelin or Javelin Plus. A "quick view" feature allows fast on-screen display.

The program package contains both two low density 5 1/4 inch diskettes and one low density 3 1/2 inch disk and a 17-page manual. On a hard disk, it occupies 694K bytes. The main program uses only about 360K and it will run directly from the floppy drive. Supplementary data on topics such as endangered species, soil quality, production, and consumption, take up the rest.

Users select countries, regions, data tables, and data columns using the STARS retrieval system developed by the World Bank. Although a bit unconventional, one becomes quite adept after only a few minutes of working with the menus.

All in all, this package provides a great deal of data in several convenient formats, all accessible with only a modest amount of effort.

Order from: WRI Publications, P.O. Box 4852, Hampden Station, Baltimore, MD 21211. Phone (301) 338-6963. $89.95. Includes a complimentary copy of the printed edition of *World Resources, 1990-91*.

—*C.H.*

POPULATION UPDATE

Estimated United States Population:

As of May 1, 1991	252,164,000
As of May 1, 1990	249,458,000

The above estimates, based on the 1990 Census, include armed forces overseas and are from U.S. Bureau of the Census *Current Population Reports*, P-25, no. 1075.

Estimated World Population:

As of September 1991	5,400,000,000
Annual growth	93,000,000

Extrapolated from the mid-1991 population on PRB's *1991 World Population Data Sheet*.

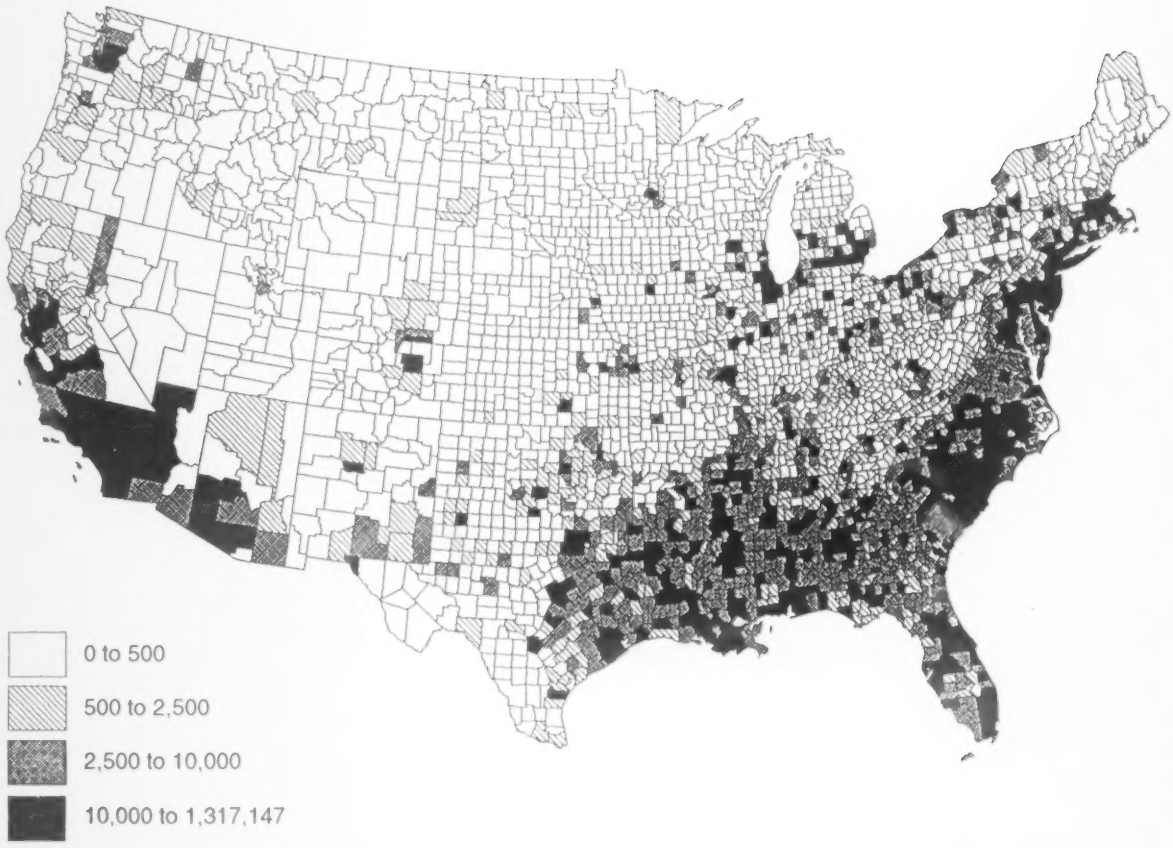
Latest Provisional Statistics for the U.S.: April 1991

	12 months ending with April					
	Number		Rate			
	1991	1990	1991	1990	1989	1988
Live births	4,164,000	4,086,000	16.5	16.4	16.0	15.7
Deaths	2,143,000	2,169,000	8.5	8.7	8.7	8.9
Natural increase	2,021,000	1,917,000	8.0	7.7	7.2	6.8
Marriages	2,444,000	2,418,000	9.7	9.7	9.6	9.8
Divorces	1,171,000	1,171,000	4.6	4.7	4.8	4.7
Infant deaths	37,900	38,900	9.1	9.6	9.8	10.0

Note. Rates are given per 1,000 population, except for infant deaths, which are given per 1,000 live births.
Source. Monthly Vital Statistics Report (vol. 40, no. 4) from the National Center for Health Statistics.

PopPatterns

Where Most U.S. Blacks Live



The 1990 Census counted 29,986,060 African Americans—12 percent of the total U.S. population. Most African Americans live in the deep South, the "BosWash" (Boston to Washington) megalopolis of the northeastern corridor and highly populated metropolitan counties, as this county-level "PopPatterns" map shows.

Southern counties, both urban and rural, have large black populations—nearly all counties in the Old South are home to at least 5,000 African-American residents. Over half (53 percent) of U.S. blacks, but only one-third (34 percent) of the total population live in the South. Although large numbers of African Americans (primarily young black males) left the South during and after World War I, out-migration slowed considerably following the civil rights movement of the 1960s.

The highly populated northeast corridor has a large black population. There and elsewhere, African Americans are increasingly moving to the suburbs. Over a quarter (27 percent) of all blacks live in suburban counties. This represents a 50 percent increase since 1980.

More than half of U.S. counties (52 percent) are home to less than 500 blacks. The Midwest and the Pacific Northwest, in particular, are predominantly white. Midwestern African Americans are concentrated in old industrial centers such as Chicago, Milwaukee, St. Louis, and Detroit. In the West, large concentrations of blacks can be found in the metropolitan counties surrounding Los Angeles, San Francisco-Oakland, San Diego, Denver, and Seattle.

Only one U.S. county has more than a million African Americans: Cook County, Illinois, with 1.3 million black residents.

—N.W.

This PRB "PopPatterns" map is presented in black and white for easy reproduction for teaching purposes.

For an overview of African-American population trends, see "African Americans in the 1990s" (PRB's *Population Bulletin*, vol. 46, no.1, July 1991, is available from the Population Reference Bureau, 1875 Connecticut Avenue, N.W., Washington, D.C. 20009. Cost: $8 each. See page 5.)

CURRENT READINGS

PRB welcomes materials on population topics for possible inclusion in Current Readings. Publishers may address review copies to Book Review Editor, POPULATION TODAY, Population Reference Bureau, 1875 Connecticut Ave., N.W., Suite 520, Washington, D.C. 20009-5728.

DEMOGRAPHIC CHANGE AND THE AMERICAN FUTURE by R. Scott Fosler, William Alonso, Jack A. Meyer, and Rosemary Kern. Published for the Committee for Economic Development by the University of Pittsburgh Press, 1990. 304 pages. Hardback: $29.95; paperback $14.95. ISBN 0-8229-3638-0 (hardback); 0-8229-5431-1 (paperback).

The 1990s offer "a limited period of fading opportunity" to address a number of challenges raised by the interplay of domestic and international demographic trends. This is the central message aimed at policymaking audiences. The dual focus—domestic and international—is necessary, say the authors, because "partly by coincidence and partly because they are closely related, forces in both spheres are traveling on a similar time path."

Produced by the prestigious Committee for Economic Development, the book explores the public policy implications of U.S. and international population trends as the 21st century approaches. As the introduction notes, demographic forces can create social and economic problems and also shape the social and institutional context in which we must address them. In addition, the insights provided by demography can point the way to workable solutions. Each of the book's three major sections target points of stress and opportunity raised by demographic trends and identify "cost-capacity gaps"—that is, gaps between social costs and society's capacity to cover them—inherent in those trends.

The first section, by William Alonso, examines trends and prospects for the growth and distribution of the American population. Alonzo cites the growth of outer metropolitan fringes as an example of how demographic forces create cost-capacity gaps between populations and jurisdictional boundaries.

In the second section, Jack Meyer and Rosemary Kern discuss aging, immigration, and changing family structure in the United States. When the large baby-boom generation reaches retirement age, the authors say, we will no longer be able to cover the social cost of aging on a pay-as-you-go basis. They advise we start investing now in building health-care capacity and the productive potential of the growing minority and immigrant sector of the work force. They anticipate a growing cost-capacity gap in international aid, as less developed countries seek to apply developed economic and military technology to raise living standards.

In the last section, lead author Scott Fosler argues that demographic forces may also weaken the political institutions that must deal with them. He sees a growing mismatch between the increasing dispersal of political power in the United States and the growing interdependence among those who hold power. Over the long run, increased political influence will accrue to the growing share of elderly and minority groups. But in the crucial decades just ahead, the large baby-boom generation holds the pivotal position in defining the new politics of aging, the development of human resource potential of the future labor force, and shaping the U.S. response to increasing global interdependence.

—Tom Merrick

[This review appeared in *Population and Development Review*, March 1991.]

SAFE SEX: A Guide to Condoms, by James W. Brackett, 2nd ed. Durant, Okla.: Essential Medico Information Systems, Inc. 1991. 99 pages. $5.95. ISBN: 0-929240-25-1.

A quick reference on condoms for counselors (or individuals) by a former official of the Office of Population of the Agency for International Development. Topics include condom use in pregnancy and disease prevention, availability and cost, how condoms are one of a broad array of birth control methods, the history of condoms, and how to discuss the subject of condoms with a sexual partner. (For more information, call 1-800-225-0694.)

—Susan Kalish

POPULATION AND NUTRITION: An Essay on European Demographic History by Massimo Livi-Bacci. New York: Cambridge University Press, 1991. 150 pages. Hardback: $39.50; paperback: $12.95. ISBN: 0-521-36325-X (hardback); 0-521-63871-5 (paperback).

Written in the essayist tradition that combines critique of old ideas with new interpretations, cogent argumentation, and attentiveness to the reader—this book makes instructive and pleasant reading. It explores the dynamics of population growth in Europe from the 14th century to the beginning of the industrial era, a period "beset by catastrophes, slow progress, and periods of unstable stagnation."

Livi-Bacci starts from a critique of Malthus' notion that the insufficient supply of food resources is the main constraint on population growth and the main cause of the high rates of mortality in pre-industrial societies. It is difficult, he argues, to sort out causes of mortality among a host of contributing factors, such as poverty, ignorance, unfavorable environmental and hygienic conditions, and upsets in the social order as well as famine. The author marshals evidence to demonstrate that "great epidemic cycles are largely independent of the state of nutrition of populations."

—Susan Kalish

SPOTLIGHT

India

(Part 1 of 2)

Population (1991): 859,200,000
Total area: 1,269,340 sq. mi.
Population density: 677 persons/sq. mi.
Births per 1,000 population: 31
Deaths per 1,000 population: 10
Rate of natural increase: 2.0 percent
Total fertility rate: 3.9 children per woman
Infant mortality rate: 91 per 1,000 live births
Life expectancy at birth: 57 years
GNP per capita: $350
Capital: New Delhi

by Jianbin Zheng

With 859 million people, India has the world's second-largest population. Only China has more people. As a developing country, India has a young and rapidly growing population, with high fertility and high infant mortality rates. This Spotlight provides a social, cultural, economic, and demographic overview of the country. The October issue will analyze population trends and their policy implications for India.

Although containing more than three times the population of the United States, India is only about one-third as large. It is bordered on the west by Pakistan, on the north by China, Nepal, and Bhutan, and on the east by Bangladesh and Myanmar. With 2,703 miles of coastline, the country stretches deep into the Indian Ocean.

India, which became independent from the British colonial rule as a dominion in 1947, is a low-income, predominantly agrarian-rural society. Agriculture accounts for about 33 percent of the GNP and employs 67 percent of the country's labor force. With the help of modern farming technology and improved seeds, India has become self-sufficient in food grains and a net agricultural exporter. Manufacturing and services employ about one-third of the labor force. India has the world's fourth-largest coal reserves.

With over 1,600 languages and dialects spoken, India recognizes 16 official languages. Indo-Aryan languages (including Hindi) are spoken by about three-fourths of the population, mostly in northern and central India. Dravidian languages, primarily spoken in the southern Indian states, account for the remaining fourth. About 80 percent of the population are Hindus and 11 percent are Muslims. Religious minorities include Christians, Sikhs, Buddhists, and Jains. The state's volatile ethnic, linguistic, and religious mix fuels intergroup tension and has frequently touched off intercommunal violence.

Fertility behavior in India is strongly influenced by the prevailing social and economic conditions, as well as deeply held cultural and religious beliefs.

The prevailing norm of early and universal marriage leads to about 4.5 million marriages each year. An estimated 3 million brides are between 15 and 19 years old, although not all marriages lead to immediate cohabitation. The mean age of marriage has slowly increased from 16.9 years in the early 1960s to 18.8 years by the mid-1980s. Divorce and separations are rare: the 1981 census counted less than 1 percent of all women age 15 to 49 as "divorced and separated." Religious and social disapproval of widow remarriage helped to lower fertility rates, especially among Hindu women. Some researchers estimate that fertility rates in India would increase by 13 percent for Hindus and 7 percent for Muslims if the ban on widow remarriage were completely eliminated. Modernization has brought a trend toward remarriages in both urban and rural areas.

The traditional preference for sons rather than daughters, particularly in rural India, also plays an important role in a couple's decisions about childbearing. A 1970 all-India family planning survey asked 27,000 married women of reproductive age (15-44) and their husbands if they felt they must have a son. An overwhelming majority answered yes—86 percent of women and 91 percent of men.

India consistently shows an unusually high sex ratio for men, even for a less developed country. The 1991 census found a sex ratio of 109 men per 100 women in India. Contributing factors to the skewed sex ratio are thought to include underreporting of female infants and children, son preference, and societal neglect and discrimination against girls, particularly in the remote Indian states.

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